

What is claimed is:

1. A method for modulating metabolism of maxillary sinus pathogenic bacteria comprising the step of contacting maxillary sinus pathogenic bacteria with an antibacterially effective amount of a composition comprising a gemifloxacin compound, or antibacterially effective derivatives thereof.
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2. The method of claim 1 wherein said maxillary sinus pathogenic bacteria is selected from the group consisting of:
a bacterial strain isolated from acute or chronic maxillary sinusitis; and
a maxillary sinus isolate of *S. aureus*, *S. pneumoniae*, *Haemophilus* spp., *M.*
10 *catarrhalis*, and anaerobic strain or non-fermentative Gram negative bacilli, *Neisseria meningitidis* and β -haemolytic *Streptococcus*.
3. A method of treating or preventing a bacterial infection by maxillary sinus pathogenic bacteria comprising the step of administering an antibacterially effective amount of a composition comprising a gemifloxacin compound to a mammal suspected of having or
15 being at risk of having an infection with maxillary sinus pathogenic bacteria.
4. The method of claim 3 wherein said maxillary sinus pathogenic bacteria is selected from the group consisting of:
a bacterial strain isolated from acute or chronic maxillary sinusitis; and
a maxillary sinus isolate of *S. aureus*, *S. pneumoniae*, *Haemophilus* spp., *M.*
20 *catarrhalis*, and anaerobic strain or non-fermentative Gram negative bacilli, *Neisseria meningitidis* and β -haemolytic *Streptococcus*.
5. The method of claim 1 wherein said modulating metabolism is inhibiting growth of said bacteria.
6. The method of claim 1 wherein said modulating metabolism is killing said
25 bacteria.
7. The method of claim 1 wherein said contacting said bacteria comprises the further step of introducing said composition into a mammal.
8. The method of claim 3 wherein said mammal is a human.
9. The method of claim 7 wherein said mammal is a human.
- 30 10. The method of claim 1 wherein said bacteria is selected from the group consisting of: a bacterial strain isolated from acute or chronic maxillary sinusitis; a maxillary sinus isolate of *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Haemophilus* spp., *Moraxella catarrhalis*, an anaerobic strain or non-fermentative Gram negative bacilli, *Neisseria meningitidis*, β -haemolytic *Streptococcus*, *Haemophilus influenzae*, an

Enterobacteriaceae, a non-fermentative Gram negative bacilli, *Streptococcus pneumoniae*,
Streptococcus pyogenes, a methicillin-resistant *Staphylococcus* spp., *Legionella*
pneumophila, *Mycoplasma* spp. and *Chlamydia* spp., *Haemophilus influenzae*,
Haemophilus parainfluenzae, *Peptostreptococcus*, *Bacteroides* spp., and *Bacteroides*
5 *urealyticus*.

11. The method of claim 1 wherein said bacteria is selected from the group
consisting of: a bacterial strain isolated from acute or chronic maxillary sinusitis; a
maxillary sinus isolate of *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Haemophilus*
spp., *Moraxella catarrhalis*, an anaerobic strain or non-fermentative Gram negative bacilli,
10 *Neisseria meningitidis*, β -haemolytic *Streptococcus*, *Haemophilus influenzae*, an
Enterobacteriaceae, a non-fermentative Gram negative bacilli, *Streptococcus pneumoniae*,
Streptococcus pyogenes, a methicillin-resistant *Staphylococcus* spp., *Legionella*
pneumophila, *Mycoplasma* spp. and *Chlamydia* spp., *Haemophilus influenzae*,
Haemophilus parainfluenzae, *Peptostreptococcus*, *Bacteroides* spp., and *Bacteroides*
15 *urealyticus*.